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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 4714 (1985): Scalers, Dental, no. SC 1/2, 3/4 and 5/6
[MHD 8: Dentistry]

“ज्ञान से एक नये भारत का निर्माण”

Satyanaaranay Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”



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Indian Standard

SPECIFICATION FOR SCALERS, DENTAL, NO. SC 1/2, 3/4 AND 5/6

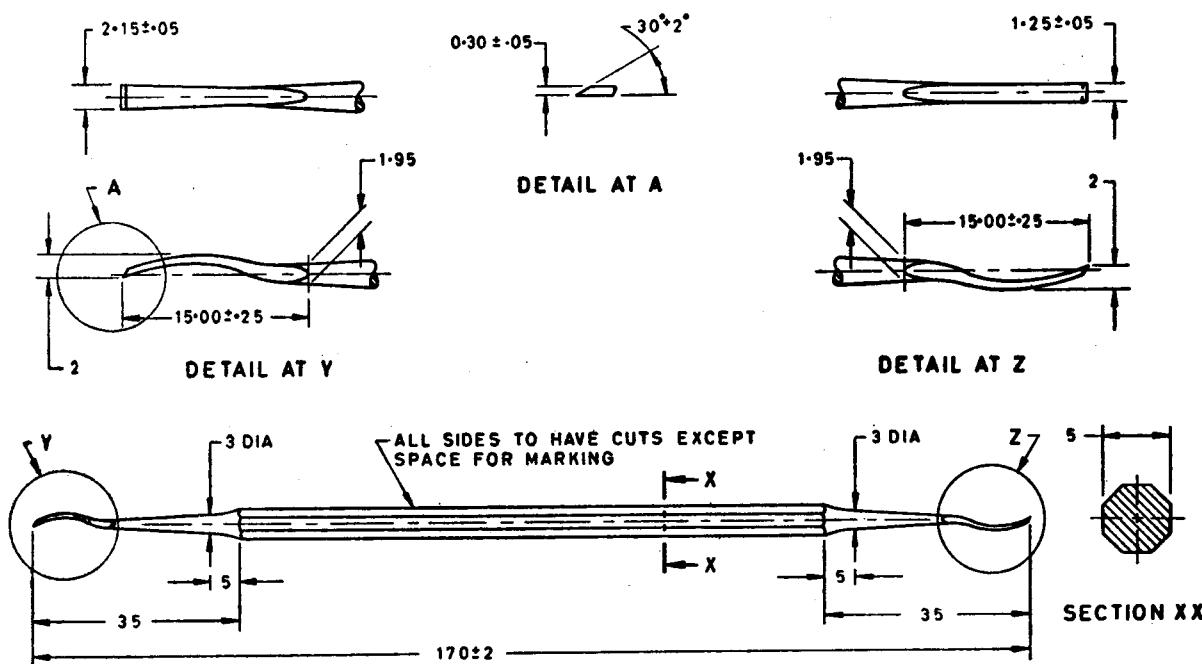
(First Revision)

1. Scope — Specifies material, dimensions and other requirements of scalers No. SC 1/2, 3/4 and 5/6 used in dentistry.

2. Material — The material shall conform to 4 of IS : 3887-1978 'General requirements for cutting type dental instruments (first revision)'.

2.1 Carbide Tip — The carbide tip of the scalers shall be of designation 'M10' of IS : 2428-1964 'Application of carbides for machining, ranges of application and colour code'.

3. Shape and Dimensions — As shown in Fig. 1 to 3.



All dimensions in millimetres.

FIG. 1 SCALER, DENTAL, No. SC 1/2

4. Requirements — The requirements of 3 of IS : 3887-1978 shall apply.

5. Workmanship and Finish — The requirements specified in 6 of IS : 3887-1978 shall apply.

6. Heat Treatment — The scalers except the carbide tip shall be uniformly hardened and tempered to a hardness of 430 to 490 HV, when tested in accordance with IS : 1501-1968 'Method for Vickers hardness test for steel (first revision)'.

7. Tests

7.1 Practical Test — The working end of the instrument shall be applied to the top of a compression type spring balance at an angle of 20° approximately. A force of 3 kgf (30N approximately) shall be applied for 30 seconds while gripping the handle at about the middle of its length. On releasing the force, the instrument shall not show any sign of damage or acquire a permanent set.

7.2 Elasticity Test — The handle of the instrument shall be gripped in a vice so that the whole length of the shank protrudes out of vice jaw. A force of 3 kgf (30 N approximately) shall be applied at a distance of 2 mm from the end in a direction at right angles to the plane of the working end. On releasing the force, the instrument shall not show any sign of damage or acquire a permanent set. The test shall be repeated on the other end also.

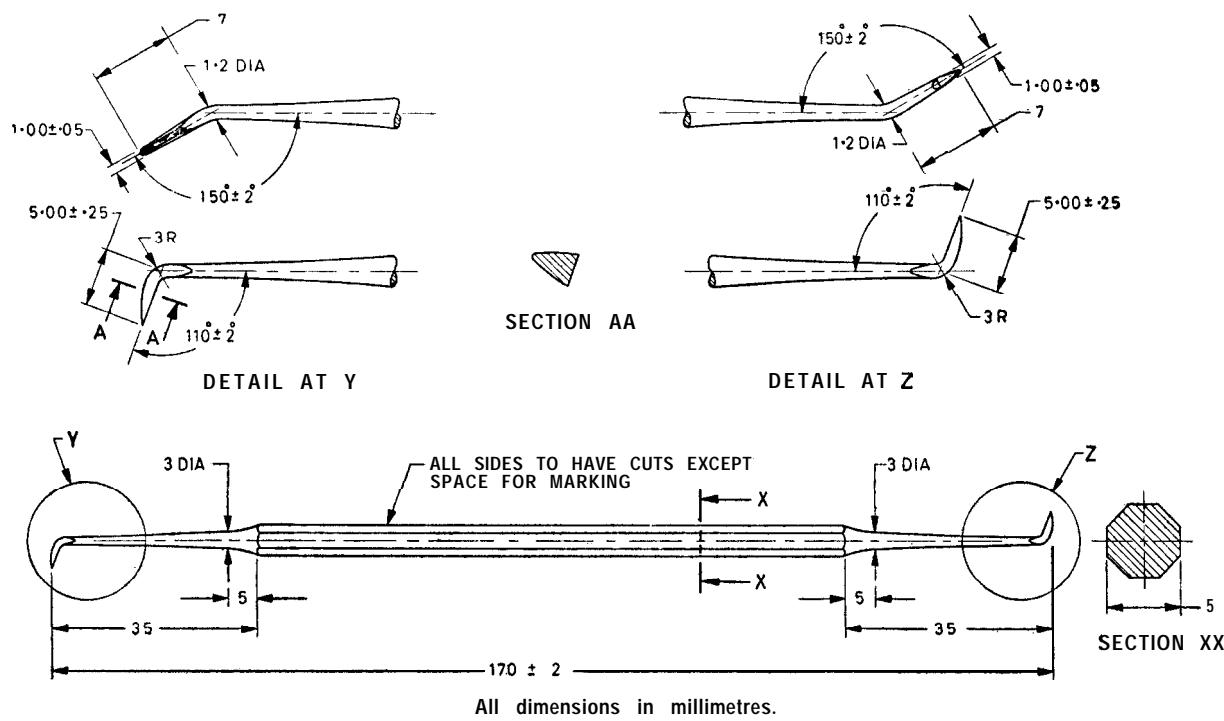


FIG. 2 SCALER, DENTAL. No. SC 3/4

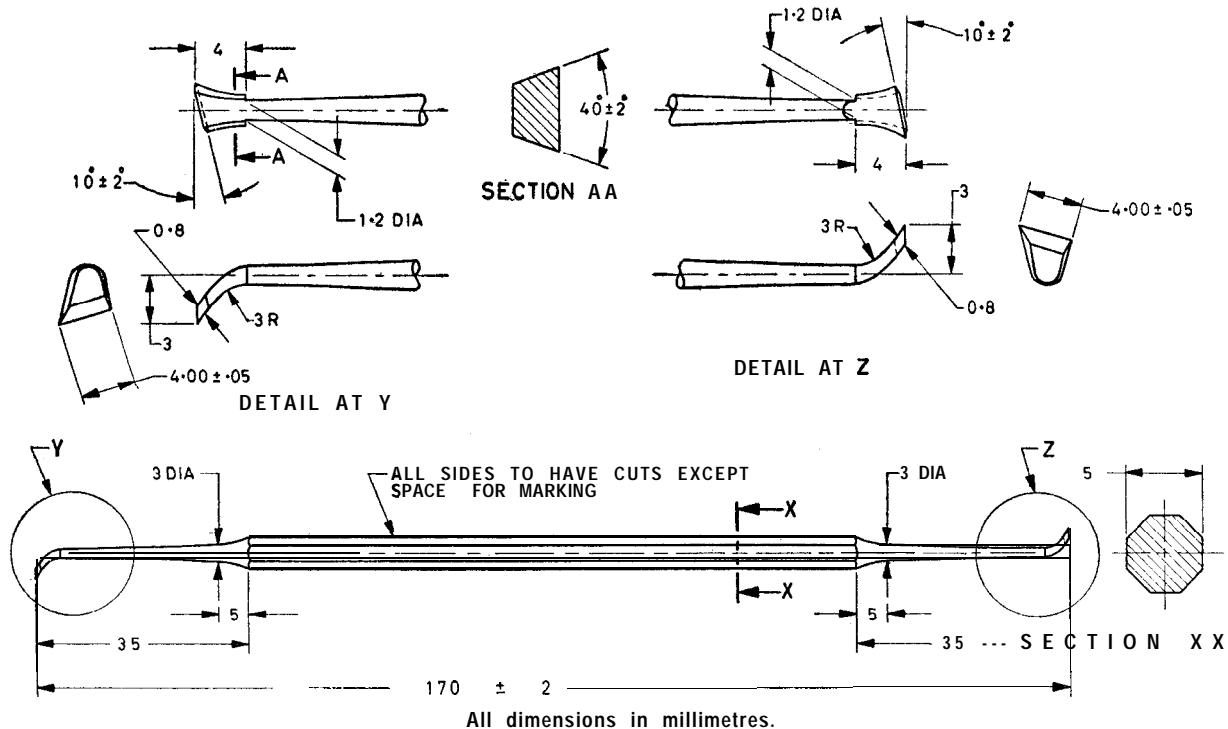


FIG. 3 SCALER, DENTAL, No. SC 5/6

7.3 Corrosion Resistance Test — The scalers shall be tested in accordance with the test specified in IS : 7531-1975 'Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments'. It shall show no sign of corrosion after the test.

7.4 Performance Test — The working end of the scaler shall be made to scrape a piece of ivory mounted on a sealing wax platform with moderate force of hand, ten times. The scaler shall do this neatly and shall not show any sign of damage after the test.

8. Marking

8.1 The space on the handle shall be marked with the number of instrument; manufacturer's name, initials or registered trade-mark; the letters 'SS', and the country of manufacture.

8.1.1 *ISI Certification Marking* — Details available with the Indian Standards institution.

9. Packing — Each scaler shall be wrapped either in a polyethylene bag or a wax paper. It shall then be packed in cartons in accordance with the current trade practice. The carton shall bear the name of the scaler; manufacturer's name, initials or registered trade-mark; the words 'Stainless Steel' and the country of manufacture.

9.1 Alternatively, it may be packed as agreed to between the purchaser and the supplier.

10. Sampling

10.1 Sampling procedure and acceptance criteria for dental scalers shall be as agreed to between the purchaser and the supplier. A recommended scheme for the same is given in Appendix A.

A P P E N D I X A

(Clause 10.1)

SAMPLING SCHEME AND CRITERIA FOR CONFORMITY FOR SCALERS, DENTAL

A-1. Lot — In any consignment, all the scalers produced from the same material under similar conditions shall constitute a lot.

A-2. The number of scalers to be selected from each lot shall depend upon the size of the lot and shall be in accordance with col 1 and 2 of Table 1.

TABLE 1 SAMPLING AND CRITERIA FOR CONFORMITY

Lot Size	Sample Size
up to 15	2
16 .. 50	3
51 .. 150	5
151 and above	8

A-2.1 These scalers shall be selected from the lot at random and in order to ensure the randomness of selection, procedures given in IS : 49051968 'Methods for random sampling' may be followed.

A-3. Number of Tests and Criteria for Conformity -All the scalers selected at random in accordance with col 1 and 2 of Table 1 shall be tested for shape and dimensions, workmanship and finish, heat treatment, practical test, elasticity test, corrosion resistance test, and performance test. The lot shall be considered as conforming to these requirements if none of the scalers in the sample is found to be defective in any of these tests.

E X P L A N A T O R Y N O T E

This standard was first published in 1968. This revised standard is in line with the present day trade practices prevalent in the dental instruments industry.

In this revision, proper references to raw materials including the carbide tip, requirements and sampling plan have been specified.